

REMARKS/ARGUMENTS

Applicant has carefully reviewed and considered the Final Office Action mailed on March 3, 2006, and the references cited therewith.

No claims are amended, canceled, or added; as a result, claims 1-19 are pending in this application.

§ 103 Rejection of the Claims

Claims 1, 2, 8-13, 18 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Schnellinger et al (U.S. Patent No. 5,642,513).

Claims 3 and 17 were rejected under 35 USC § 103(a) as being unpatentable over Schnellinger et al (U.S. Patent No. 5,642,513) as applied to claims 1, 12 above and further in view of Pourjavid (U.S. Patent No. 5,883,985).

Claims 6 and 16 were rejected under 35 USC § 103(a) as being unpatentable over Schnellinger et al (U.S. Patent No. 5,642,513) as applied to claims 1, 12 above and further in view of De La Huerga (U.S. Publication No. 2002/0116509).

Claims 4, 5, 14 and 15 were rejected under 35 USC § 103(a) as being unpatentable over Schnellinger et al (U.S. Patent No. 5,642,513) as applied to claims 1, 11 above and further in view of Zandi et al (U.S. Patent No. 6,195,465).

Claim 7 was rejected under 35 USC § 103(a) as being unpatentable over Schnellinger et al (U.S. Patent No. 5,642,513) as applied to claims 1, 12 above and further in view of Booth et al (U.S. Patent No. 6,065,073).

Applicant respectfully traverses the rejections as follows.

Claim 1

The Examiner has incorporated the rejection of claims 1, 2, 8-13, 18 and 19 as presented in the Office Action dated June 3, 2005. In response, Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger does not support a proper *prima facie* case of obviousness. Applicant addresses the Examiner's response to these arguments below.

As the Examiner appreciates, during examination, the claims must be interpreted as broadly as their terms reasonably allow, however, the claims must be

given their broadest reasonable interpretation consistent with the specification.

This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In *re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). It is only when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language. In *re Vogel*, 422 F.2d 438, 441, 164 USPQ 619, 622 (CCPA 1970). In addition, an applicant is entitled to be his or her own lexicographer and may rebut the presumption that claim terms are to be given their ordinary and customary meaning by clearly setting forth a definition of the term that is different from its ordinary and customary meaning(s). See *In Re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999). Also, the specification should also be relied on for more than just explicit lexicography or clear disavowal of claim scope to determine the meaning of a claim term when applicant acts as his or her own lexicographer; the meaning of a particular claim term may be defined by implication, that is, according to the usage of the term in context in the specification. See *Phillips v. AWH Corp.*, __F.3d __, 75 USPQ 2d 1321 (Fed. Cir. 2005) (en banc).

Applicant clearly recites the features upon which are relied upon in the claims. In addition, Applicant clearly defines and distinguishes the recited term "patch data" in the specification,

Patch data 87E includes all modifications to medical imaging information 87B, which was originally generated by the source modality. In other words, the original data is not modified. Rather, the asset includes patch data 87E that stores all of the updated data and, in particular, a revision history including the date and time of the change, and operator that made the change. In other words, during the reconciliation process, patient manager 48 stores all updates and modifications of an asset within the patch data 87E of the exchange format 86. In this manner, exchange format 86 facilitates compliance with regulations that require change tracking and revision histories and furthermore, facilitates storages of the information within a single self-describing data asset. When a view station presents the data to an operator, patch data 87E overrides the

medical imaging 87B. However, the operator may always view the revision history and the original medical imaging data 87B. (page 15, line 24 – page 16, line 5).

In responding to Applicant's argument, the Examiner asserts that "features upon which applicant argues features [*sic*] that are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 998 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)." (Final Office Action, page 5).

As discussed above, Applicant expressly recites the term "patch data" in the claims, where the term is clearly and expressly defined in the specification. This is in contrast to the facts in *In re Van Geuns* cited by the Examiner, in which Van Geuns tried to limit the phrase "uniform magnetic field" of a magnetic assembly recited in the claim to that of an NMR or MRI apparatus among others generally provided in the specification. In other words, Van Geuns tried to limit the phrase recited in the claim by narrowly reading its meaning from a broader recitation in the specification. As such, *In re Van Geuns* is distinguished from the present case, since Applicant is not trying to limit the interpretation of the term "patch data," as was the case in *In re Van Geuns*.

As defined in the specification, the fourth data structure that stores patch data that includes modifications to the medical imaging information, as recited in claim 1, includes patch data that stores all of the updated data and a revision history including the date and time of the change and the operator that made the change. In contrast, Schnellinger provides "[t]he MIG [Medical Imaging Gateway] also provides for compression/expansion of data, communication control, temporary storage, and security/error checking" for medical images (Col. 5, lines 25-26). In addition, Schnellinger provides that "Image Images can be captured (acquired from the source modality), stored locally, or remotely) temporarily for a short time or archived for a long time), retrieved from local or remote storage, viewed, previewed, adjusted, manipulated, and composed" (Col. 11, lines 46-50). Schnellinger, however, does not teach or suggest a fourth data structure that stores patch data that includes modifications to the medical imaging information as provided in claim 1, among other things. Rather, it appears that Schnellinger teaches that the medical

image (Image Images) can be "viewed, previewed, adjusted, manipulated, and composed" but does not teach or suggest that the modifications to the medical images are stored. Therefore, the Applicant is unable to find in Schnellinger where the "MIG" and/or the "Image Images" include a data structure that stores patch data having modifications to the medical imaging information that was originally generated by the source modality and a revision history including the date and time of a change, and the operator that made the change to the medical imaging information.

As such, each and every element and limitation are not provided in the reference to support a §103 rejection of claim 1.

In the Final Office Action, the Examiner states "Dependent claim 6, does recite that patch data includes revise history having data, time, and associated operator. Schnellinger does not disclose this, but the concept of keeping a record of modifications including time stamping is well known as suggested by De La Huerga. . . . In response to this argument against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. . . ." (Final Office Action, page 5). It appears that the Examiner is providing this argument in response to Applicant's assertion that "patch data" includes modifications to the medical information that was originally generated by the source modality and a revision history including the date and time of a change and the operator that made the change to the medical imaging information. However, Applicant was referring to the "patch data" recited in independent claim 1 and defined in the specification when Applicant was discussing storing a revision history in the Remarks filed on September 6, 2005. As independent claim 1 was rejected based on an individual reference, Applicant directed arguments towards the single reference, i.e. Schnellinger. Applicant was not attempting to show nonobviousness by attacking references individually where the rejections were based on a combination of references.

Regarding dependent claim 6, if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837

F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). In the Remarks filed on September 6, 2005, Applicant argued that independent claim 1 was nonobvious over Schnellinger because Schnellinger did not support a *prima facie* case of obviousness. Therefore, the combination of Schnellinger with De La Huerga does not cure the deficiencies of Schnellinger since claim 6 is dependent on claim 1.

As discussed above, Schnellinger provides "[t]he MIG also provides for compression/expansion of data, communication control, temporary storage, and security/error checking" for medical images (Col. 5, lines 25-26). The MIG described by Schnellinger "provides a platform for the movement of diagnostic quality images at high speeds between different locations." (Col. 5, lines 13-15). Therefore, when Schnellinger refers to "security/error checking," Schnellinger is appearing to teach or suggest actions taking place before an image can be moved from the source of the medical image to the image display workstations and imaging networks. (Col. 5, lines 15-18). On the other hand, Schnellinger does not appear to teach or suggest the storage of any error found, and makes no mention of storing correction information. In fact, the MIG is not a storage structure at all, but is instead an "interface between the source of medical images (the image generators), image display workstations, and imaging networks." (Col. 5, lines 15-18). Therefore, Schnellinger does not teach or suggest a fifth data structure that stores error detection and correction information, as recited in claim 1, among other things.

As such, each and every element and limitation are not provided in the reference to support a §103 rejection of claim 1.

The Examiner in the Final Office Action also states with respect to claim 7 that "one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. . . ." (page 6). As discussed above, however, if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). In the Remarks filed on September 6, 2005, Applicant argued that independent claim 1 was nonobvious over Schnellinger because Schnellinger did not support a *prima facie* case of obviousness. Therefore,

the combination of Schnellinger with Booth does not cure the deficiencies of Schnellinger since claim 7 is dependent on claim 1.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. M.P.E.P. 2143.01 Sec. I. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

In the Office Action mailed June 3, 2005, the Examiner addressed the claim limitations with respect to the first, second, and third data structures of claim 1, and the Examiner asserted that the system of Schnellinger includes security and error checking function, and that the image information can be previewed, adjusted, manipulated and composed. The Examiner then concluded that "it is readily

apparent that data structures for patch data and error detecting/correcting are necessary for carrying these functions" (page 4, Office Action). As discussed above, however, these functions for the "patch data" include all modifications to medical imaging information that was originally generated by the source modality, including storing all of the updated data and, in particular, a revision history including the date and time of the change and operator that made the change. In the previous response filed September 6, 2005, Applicant specifically traversed Examiner's finding that "it would have been obvious to one having ordinary skill in the art at the time of the invention to include stored data structures for data modification and error detecting/correcting information with the motivation of increasing the security and reliability of the system. Schnellinger et al., col 5, lines 25-26." (Office Action, pages 4-5) based on inherency. Applicant respectfully requests either objective evidence or cogent technical reasoning as to where and/or how Schnellinger provides support for the conclusion of inherency.

Accordingly, reconsideration and withdrawal of the §103 rejection for independent claim 1 is respectfully requested.

Claims 2-7

The Examiner has essentially repeated the rejection of claims 2-7 as presented in the Office Action dated June 3, 2005. In response, Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger does not teach all of the elements recited in claims 2-7.

Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger and Pourjavid do not teach all of the elements recited in claim 3.

Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger and Zandi do not teach all of the elements recited in claims 4 and 5.

Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger and DeLaHuerga do not teach all of the elements recited in claim 6.

Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger and Booth do not teach all of the elements recited in claim 7.

Reconsideration and withdrawal of the §103 rejection for claims 2-7 are respectfully requested.

Claim 8

The Examiner has essentially repeated the rejection of claim 8 as presented in the Office Action dated June 3, 2005. In response, Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger does not teach all of the elements recited in claim 8. In addition, Applicant responds to the Examiner's response as follows.

The Office Action mailed June 6, 2005 asserted that while Schnellinger "does not expressly recite the receiving of data structures that store patch data including modifications to the medical imaging information" Schnellinger does teach "on col. 11, lines 46-50 that image information can be stored, retrieved, previewed, adjusted, manipulated and composed." Based on this, the Examiner asserted that "it is readily apparent that the receiving of stored patch data including modifications to the medical imaging information is necessary for retrieving, adjusting, manipulating or composing the image information." (page 5, Office Action).

As with the rejection of claim 1, it appears that the Examiner is relying upon an inherency argument in rejecting claim 8. However, Applicant specifically traversed Examiner's finding that "it is readily apparent that the receiving of stored patch data including modifications to the medical imaging information is necessary for retrieving, adjusting, manipulating or composing the image information." (page 5, Office Action) based on inherency. Applicant respectfully requests either objective evidence or cogent technical reasoning as to where and/or how Schnellinger provides support for the conclusion of inherency.

Accordingly, reconsideration and withdrawal of the §103 rejection for independent claim 8 are respectfully requested.

Claims 9-17

The Examiner has essentially repeated the rejection of claims 9-17 as presented in the Office Action dated June 3, 2005. In response, Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger does not teach all of the elements recited in claims 9-13.

Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger and Zandi do not teach all of the elements recited in claims 14 and 15.

Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger and DeLaHuerga do not teach all of the elements recited in claim 16.

Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger and Pourjavid do not teach all of the elements recited in claim 17.

Reconsideration and withdrawal of the §103 rejection for claims 9-17 are respectfully requested.

Claim 18

The Examiner has essentially repeated the rejection of claim 18 as presented in the Office Action dated June 3, 2005. In response, Applicant respectfully repeats the September 6, 2005 discussion as to why Schnellinger does not teach all of the elements recited in claim 18. In addition, Applicant addresses Examiner's response as follows.

The Examiner asserts that while Schnellinger "does not expressly recite the patch data including modifications to the medical imaging information" Schnellinger does teach "on col. 11, lines 46-50 that image information can be stored, retrieved, previewed, adjusted, manipulated and composed." Based on this, the Examiner asserts that "it is readily apparent that the receiving of stored patch data including modifications to the medical imaging information is necessary for retrieving, adjusting, manipulating or composing the image information." (pages 6-7, Office Action).

As with the rejection of claim 1, it appears that the Examiner is relying upon an inherency argument in rejecting claim 18. However, Applicant specifically traversed Examiner's finding that "it is readily apparent that the receiving of stored patch data including modifications to the medical imaging information is necessary

for retrieving, adjusting, manipulating or composing the image information." (pages 6-7, Office Action) based on inherency. Applicant respectfully requests either objective evidence or cogent technical reasoning as to where and/or how Schnellinger provides support for the conclusion of inherency.

Accordingly, reconsideration and withdrawal of the §103 rejection for independent claim 18, as well as claims which depend therefrom, are respectfully requested. Claim 19 is a dependent claim upon independent claim 18. Accordingly, Applicant asserts that claim 19 is deemed allowable upon the basis discussed above.

Based on the forgoing, Applicants respectfully submit that each and every element as recited in independent claims 1, 8, and 18 is not taught or suggested in cited document, and that there is insufficient motivation to modify the cited document. Therefore, the § 103 rejection should be withdrawn.

Reconsideration and withdrawal of the § 103 rejection for the above independent claims, as well as those claims which depend therefrom, are respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 236-0122 to facilitate prosecution of this matter.

CERTIFICATE UNDER 37 CFR §1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS AF Commissioner for Patents, P.O. BOX 1450 Alexandria, VA 22313-1450, on this 3rd day of May, 2006.

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